

**REMARKS**

This Amendment, submitted in response to the Office Action dated October 17, 2006, is believed to be fully responsive to each point of rejection raised therein. Accordingly, favorable reconsideration on the merits is respectfully requested.

Claims 3-5 are allowed.

Claims 1 and 2 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Bigo et al. "5.12 Tbit/s (128x40 Gbit/s WDM) transmission over 3x1000 km of TeraLight Fibre," (hereinafter "Bigo"). Applicant respectfully traverses this rejection.

Independent claim 1 recites:

A method for modulating a non-return to zero (NRZ) signal transmitted to a receiver utilizing alternating left side and right side filtering for adjacent channels having alternating channel spacing, the method comprising:

modulating channels which are to be subjected to the right side filtering with only a positive chirp; and

modulating channels which are to be subjected to the left side filtering with only a negative chirp.

Thus, independent claim 1 requires, *inter alia*, a receiver utilizing left side and right side filtering, modulating channels which are to be subjected to the right side filtering with only a positive chirp and modulating channels which are to be subjected to the left side filtering with only a negative chirp.

Bigo, by contrast, discloses a single VSB filter at the receiver side (i.e., in front of the receiver Rx) which filters 128 channels transmitted over a 100 km TeraLight™ connection.<sup>1</sup> The signals transmitted to the receiver within the 128 channels cover the C and L bands.<sup>2</sup> In each band, channels are modulated independently by two Mach-Zehnder modulators.<sup>3</sup> However, Bigo fails to teach or suggest a receiver utilizing both left side and right side filtering, where modulating channels which are to be subjected to the right side filtering with only a positive chirp and modulating channels which are to be subjected to the left side filtering with only a negative chirp.

Nevertheless, the Examiner asserts that “[t]he signal generated by the system of Bigo shown in FIG. 2 provides left-side filtering and right-side filtering.” However, Applicant notes that it is the VSB filter at the receiver side (i.e., in front of the receiver Rx) which filters the 128 channels. The Examiner further asserts that “[t]his indicates that the prior art element performs the identical function specified in the claim in substantially the same way, and produces substantially the same results as the corresponding element discloses in the specification. Based on this, it would have been obvious that such result is obtained by providing positive or negative chirp.” Applicant respectfully disagrees with the Examiner’s position.

Assuming, *arguendo*, that Bigo’s M-Z modulators modulate the channels with both positive and negative chirp, the M-Z modulators would modulate all channels the same. That is,

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<sup>1</sup> See Bigo, FIG. 2, and page 1, col. 1, second paragraph.

<sup>2</sup> See Bigo, FIG. 2, and page 1, col. 1, second paragraph.

<sup>3</sup> See Bigo, FIG. 2, and page 1, col. 2, first paragraph.

those channels which are to be subjected to right-side filtering would be modulated with both positive and negative chirp, and the channels which are to be subjected to left-side filtering would be modulated with both positive and negative chirp. As noted above, independent claim 1 requires that the channels to be subjected to right side filtering are modulated with only a positive chirp, and the channels to be subjected to left side filtering are modulated with only a negative chirp. Moreover, the M-Z modulators disclosed in Bigo do not necessarily modulate channels to be subjected to right side filtering with only a positive chirp, and channels to be subjected to left side filtering with only a negative chirp. Thus, Applicant submits that the elements disclosed in Bigo are not necessarily equivalent to the required features of the claimed invention.

Accordingly, Applicant submits that independent claim 1 is patentable over Bigo, at least for the reasons stated above, and further, that dependent claim 2 is patentable over Bigo, at least by virtue of its dependency on claim 1.

In view of the above, reconsideration and allowance of this application are now believed to be in order, and such actions are hereby solicited. If any points remain in issue which the Examiner feels may be best resolved through a personal or telephone interview, the Examiner is kindly requested to contact the undersigned at the telephone number listed below.

AMENDMENT UNDER 37 C.F.R. §1.111  
Application No. 10/054,860

Docket No. Q68100

The USPTO is directed and authorized to charge all required fees, except for the Issue Fee and the Publication Fee, to Deposit Account No. 19-4880. Please also credit any overpayments to said Deposit Account.

Respectfully submitted,



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